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Claim 34. (previously presented) A method for forming a photoresist relief image, comprising:

- (a) providing an integrated circuit substrate having a dielectric layer thereon;
- (b) over the dielectric layer, applying a coating layer of an organic antireflective composition that comprises a silsesquioxane resin ~~component with Si substitution~~;
- (c) applying a coating layer of a photoresist composition over the antireflective composition layer;
- (d) exposing to patterned radiation and developing the photoresist composition coating layer to form a photoresist layer.

Claims 35-36. (cancelled)

Claim 37. (currently amended) The method of claim 35 wherein the silsesquioxane ~~organosilicon~~-resin comprises a radiation absorbing chromophore.

Claim 38. (previously presented) The method of claim 37 wherein the chromophore is one or more anthracene groups.

Claim 39. (withdrawn) The method of claim 37 wherein the chromophore is one or more naphthyl groups.

Claim 40. (withdrawn) The method of claim 37 wherein the chromophore is one or more phenyl groups.

Claim 41. (previously presented) The method of claim 34 wherein the antireflective composition comprises an organosilicon resin and a separate component that comprises a radiation absorbing chromophore.

Claim 42. (previously presented) The method of claim 41 wherein the organosilicon resin is a silsesquioxane resin.

Claim 43. (previously presented) The method of claim 41 wherein the chromophore is one or more anthracene groups.

Claim 44. (withdrawn) The method of claim 41 wherein the chromophore is one or more naphthyl groups.

Claim 45. (withdrawn) The method of claim 41 wherein the chromophore is one or more phenyl groups.

Claim 46. (previously presented) The method of claim 34 wherein the antireflective composition is applied by spin coating.

Claim 47. (previously presented) The method of claim 34 wherein the antireflective composition comprises a component that has aromatic groups.

Claim 48. (previously presented) The method of claim 47 wherein the aromatic groups are carbocyclic groups.

Claim 49. (previously presented) The method of claim 47 wherein the aromatic groups are optionally substituted anthraceneyl groups, optionally substituted naphthyl groups or optionally substituted phenyl groups.

Claim 50. (previously presented) The method of claim 34 wherein the photoresist is imaged with radiation having a wavelength of about 248 nm and the antireflective composition comprises a component that has optionally substituted anthracene groups.

Claim 51. (withdrawn) The method of claim 34 wherein the photoresist is imaged with radiation having a wavelength of about 248 nm and the antireflective composition comprises a component that has optionally substituted naphthyl groups.

Claim 52. (withdrawn) The method of claim 34 wherein the photoresist is imaged with radiation having a wavelength of about 193 nm and the antireflective composition comprises a component that has optionally substituted phenyl groups.

Claim 53. (previously presented) The method of claim 34 wherein the dielectric layer is an inorganic layer.

Claim 54. (previously presented) The method of claim 34 wherein the dielectric layer comprises SiO₂.

Claim 55. (previously presented) The method of claim 34 wherein the dielectric layer comprises an organic resin.

Claim 56. (previously presented) The method of claim 34 wherein the antireflective composition further comprises a crosslinker.

Claim 57. (previously presented) The method of claim 57 wherein the crosslinker is an amine-based material.

Claim 58. (previously presented) The method of claim 57 wherein the crosslinker is a glycouril.

Claim 59. (previously presented) The method of claim 57 wherein the antireflective composition further comprises an acid or acid generator compound.

Claim 60. (previously presented) The method of claim 34 wherein the antireflective composition is crosslinked prior to applying the photoresist composition layer.

Claim 61. (previously presented) The method of claim 34 wherein the antireflective composition is thermally treated prior to applying the photoresist composition layer.

Claim 62. (currently amended) A method for forming a photoresist relief image, comprising:

(a) applying over an integrated circuit substrate a coating layer of an organic antireflective composition that comprises a silsesquioxane resin that comprises one or more aromatic groups~~-an organosilicon resin~~;

(b) applying a coating layer of a photoresist composition over the antireflective composition layer;

(c) exposing to patterned radiation and developing the photoresist composition coating layer to form a photoressit relief image.

63. (cancelled)

Claim 64. (currently amended) The method of claim 62 ~~63 or 64~~ wherein the silsesquioxane resin ~~organosilicon resin~~ comprises a radiation absorbing chromophore.

Claim 65. (currently amended) The method of claim 62 ~~65~~ wherein the one or more aromatic groups comprise chromophore ~~chromophore is one or more anthracene groups~~.

Claim 66. (currently amended) The method of claim 62 ~~65~~ wherein the one or more aromatic groups comprise chromophore ~~chromophore is one or more naphthyl groups~~.

Claim 67. (currently amended) The method of claim 62 ~~65~~ wherein the one or more aromatic groups comprise chromophore ~~chromophore is one or more phenyl groups~~.

Claim 68. (currently amended) The method of claim 62 ~~63~~ wherein the antireflective composition comprises an organosilicon resin and a separate component that comprises a radiation absorbing chromophore.

Claim 69. (currently amended) The method of claim 62 ~~69~~ wherein the organosilicon resin is a silsesquioxane resin.

Claim 70. (currently amended) The method of claim 68 or 69 ~~69 or 70~~ wherein the chromophore is one or more anthracene groups.

Claim 71. (currently amended) The method of claim 68 or 69 ~~69 or 70~~ wherein the chromophore is one or more naphthyl groups.

Claim 72. (currently amended) The method of claim 68 or 69 ~~69 or 70~~ wherein the chromophore is one or more phenyl groups.

Claim 73. (currently amended) The method of claim 62 ~~63~~ wherein the antireflective composition is applied by spin coating.

Claim 74. (currently amended) The method of claim 62 ~~63~~ wherein the antireflective composition comprises a component that has aromatic groups.

Claim 75. (currently amended) The method of claim 74 ~~75~~ wherein the aromatic groups are carbocyclic groups.

Claim 76. (currently amended) The method of claim 75 ~~76~~ wherein the aromatic groups are optionally substituted anthraceneyl groups, optionally substituted naphthyl groups or optionally substituted phenyl groups.

Claim 77. (currently amended) The method of claim 62 ~~63~~ wherein the photoresist is imaged with radiation having a wavelength of about 248 nm and the antireflective composition comprises a component that has optionally substituted anthracene groups.

Claim 78. (currently amended) The method of claim 62 ~~63~~ wherein the photoresist is imaged with radiation having a wavelength of about 248 nm and the antireflective composition comprises a component that has optionally substituted naphthyl groups.

Claim 79. (currently amended) The method of claim 62 ~~63~~ wherein the photoresist is imaged with radiation having a wavelength of about 193 nm and the antireflective composition comprises a component that has optionally substituted phenyl groups.